

AVIAN/PANDEMIC FLU NEWSLETTER

THE OFFICIAL AVIAN INFLUENZA NEWSLETTER OF HEALTH AND HUMAN SERVICES AGENCY



FLU:Pandemic/Bird
Plan. Prepare. Protect.
County of San Diego

www.sdbirdflu.org

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Avian Influenza: Current Global Situation Update

AVIAN INFLUENZA CASES IN HUMANS

Since January 2004, the World Health Organization (WHO) has reported human cases of Avian Influenza A/ (H5N1) in more than twelve countries like Cambodia, China, Indonesia, Thailand, Vietnam, Azerbaijan, Turkey, Egypt, Djibouti, Iraq, Lao People's Democratic Republic, and Nigeria.

Cumulative Number of Confirmed Human Cases of Avian Influenza A/ (H5N1) Reported to WHO through October 8, 2007. WHO only reports laboratory-confirmed cases.

- ◆ Total human cases of H5N1 (confirmed) = 330
- ◆ Total human deaths from H5N1= 202

http://www.who.int/csr/disease/avian_influenza/cases_table_2007_04_11.html

Currently, there are no reported human OR animal cases of the highly pathogenic Avian Influenza (H5N1) in United States.

World Health Organization (WHO)

Indonesia - October 8, 2007

The Ministry of Health has announced a two new cases of human infection of H5N1 avian influenza. A 44-year-old female from Pekanbaru City in Riau Province developed symptoms on October 1st and died on October 6th. A team is currently investigating the case to determine the source of her exposure. All of the contacts are being monitored but all remain healthy.

The second case, a 21-year-old male from Jakarta Province developed symptoms on September 18th, was hospitalized on September 25th and died in hospital on September 28th. The investigation found that the case was an egg seller in a traditional market. All of the contacts remain healthy, where they will continue to be monitored for ten days after their last contact with the case

Of the 108 cases confirmed to date in Indonesia, 87 have been fatal.

http://www.who.int/csr/don/2007_10_08/en/index.html

Study—Bird Flu virus can pass mother to child

Washington - September 27, 2007 (Reuters)

The H5N1 bird flu virus can pass through a pregnant woman's placenta to infect the fetus, researchers reported on Thursday September 27, 2007.

They also found evidence of what doctors had long suspected - that the virus not only affects the lungs, but also passes throughout the body into the gastrointestinal tract, the brain, liver, and blood cells.

The study is the 1st to come out of the Infectious Disease Center at Peking University in Beijing, established after the epidemic of severe acute respiratory syndrome or SARS, a new virus that spread out of China in 2003, killing 800 people and infecting 8000 before it was stopped. *For more information, please go to* <http://www.alertnet.org/thenews/newsdesk/N27422356.htm>

SPECIAL POINTS OF INTEREST:

- Cumulative Number of Confirmed Human Cases
- Bird Flu Virus can pass mother to child
- Pandemic Influenza funding for San Diego was cut by more than half.

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AVIAN INFLUENZA CASES IN POULTRY AND WILD BIRDS

World Bank aid to help Bangladesh fight bird flu

October 8, 2007

DHAKA (Reuters) - Bangladesh will receive a grant of \$2 million from a concessionary arm of the World Bank to help arrest the spread of bird flu in the densely populated country, a bank statement said on Monday.

Bird flu has spread to 19 districts out of Bangladesh's 64 districts since March, forcing authorities to cull nearly 246,000 chickens.

There have been no known cases of people being infected with the H5N1 virus in the country.

<http://in.reuters.com/article/worldNews/idINIndia-29903520071008>



NATIONAL NEWS

U.S. Department of Health and Human Services

September 21, 2007

Planning Checklists Released for Law Enforcement and Correctional Facilities:

[Law Enforcement Pandemic Influenza Planning Checklist \(PDF - 467.82 KB\)](#)

In the event of pandemic influenza, law enforcement agencies (e.g., State, local, and tribal Police Departments, Sheriff's Offices, Federal law enforcement officers, special jurisdiction police personnel) will play a critical role in maintaining the rule of law as well as protecting the health and safety of citizens in their respective jurisdictions. Planning for pandemic influenza is critical.

To assist you in your efforts, the Department of Health and Human Services (HHS) has developed the following checklist for law enforcement agencies. This checklist provides a general framework for developing a pandemic influenza plan. Each agency or organization will need to adapt this checklist according to its unique needs and circumstances. The key planning activities in this checklist are meant to complement and enhance your existing all-hazards emergency and operational continuity plans. Many of the activities identified in this checklist will also help you to prepare for other kinds of public health emergencies.

Information specific to public safety organizations and pandemic flu preparedness and response can be found at <http://www.ojp.usdoj.gov/BJA/pandemic/resources.html>
[Correctional Facilities Pandemic Influenza Planning Checklist \(PDF - 1.39 MB\)](#)

Planning for pandemic influenza is critical for ensuring a sustainable health care delivery system within correctional facility settings. The Department of Health and Human Services (HHS) has developed the following checklist to help prison and jail systems to self-assess and improve their preparedness for responding to pandemic influenza. Given the differences among systems, individual facilities should adapt this checklist to meet their unique needs.

This checklist should be used as one tool in developing an overall pandemic influenza plan for correctional systems as well as individual facilities. Responsible officials should incorporate information from State, regional and local health departments and emergency management agencies/authorities into the system and individual facility pandemic influenza plan. An additional benefit of this planning is that it can be used for other types of disaster preparedness.

<http://www.pandemicflu.gov/lawenforcement.html>

LOCAL AND STATE NEWS

Local News/ Outreach

Activities related to Pandemic Influenza education in the regions continue with more than 122,743 educational material distributed to various community locations. In addition, a total of 140 presentations have been provided to staff and community residents.

State/ Federal News

In FY06/07, San Diego received \$580K. This fiscal year 07/08, funding was cut by more than half.



PANDEMIC/ AVIAN FLU IN THE MEDIA

The Journal of Infectious Diseases - October 5, 2007
 Cross-protection against H5N1 influenza virus infection is afforded by intranasal inoculation with seasonal trivalent inactivated influenza vaccine.

<http://www.journals.uchicago.edu/JID/journal/issues/v196n9/38072/brief/38072.abstract.html?erFrom=-803067424072274611Guest>

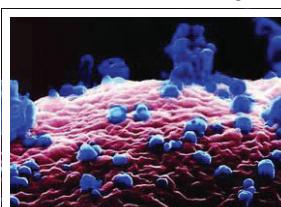
H5N1 mutation that could help spark pandemic identified - Public Library of Science Pathogens (PLoS Pathogens) October 5, 2007

Highly pathogenic avian H5N1 influenza "A" viruses have spread around the world since 2003, raising serious worldwide concern about their pandemic potential. Although efficient human-to-human transmission of this virus has not yet occurred, the potential of these viruses to acquire the ability is evident. The receptor specificity of the haemagglutinin (HA) protein is considered a main factor affecting efficient transmission of H5N1 viruses. Yet, some H5N1 viruses isolated from humans that possess human receptor specificity have still failed to spread efficiently among humans.

Therefore, amino acid substitutions in viral proteins other than the receptor-binding HA protein must be necessary for efficient growth and person-to-person transmission of avian H5N1 influenza virus. In our study, we defined the contribution of the amino acid at position 627 of the PB2 to efficient replication of H5N1 influenza viruses in the upper respiratory tracts of mice as a mammalian model. Because efficient viral growth in the upper respiratory tract of humans can facilitate virus excretion by coughing and sneezing, a mutation of PB2 amino acid 627, which contributes to efficient growth at this site in a mammal, may be prerequisite for efficient human-to-human transmission.

<http://pathogens.plosjournals.org/perlServ/?request=get-document&doi=10.1371/journal.ppat.0030133>

A single amino acid substitution in PB1-F2 can result in increased viral pathogenicity



PB1-F2 Single Mutation

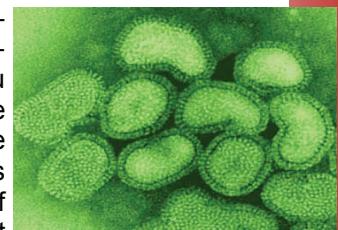
Public Library of Science Pathogens (PLoS Pathogens) October 5, 2007

PB1-F2 is the most recently discovered protein produced by the influenza "A" virus. It has been previously shown that PB1-F2 is present in the mitochondria, where it induces cell death; our laboratory has demonstrated that PB1-F2 is a contributor to pathogenesis in the mouse model of infection. To study PB1-F2 further, we examined highly pathogenic strains of avian influenza virus and located an amino acid change that seemed to be associated with increased death in mice. We studied this amino

acid change in PB1-F2 at position 66 in two different viruses. A recombinant virus that has a *PB1* gene from an H5N1 virus was used as well as a fully reconstructed 1918 pandemic virus. In this study, we show that a mutation in PB1-F2 found in highly pathogenic influenza A virus isolates causes non-pathogenic viruses to induce disease in mice. In addition, we show that the increased pathogenicity is associated with higher levels of virus and cytokines in the lungs. We conclude that PB1-F2 does affect pathogenicity, and that position 66 seems to play an important role in contributing to the effects of PB1-F2 in the mouse model

Voice of America - September 27, 2007

An international team of researchers says it has discovered what makes the bird flu virus so deadly. It appears the disease affects a wide range of organs other than the lungs in adults and is capable of killing the fetus of pregnant women. VOA's Jessica Berman reports.



Bird Flu Virus

Researchers have been trying to develop vaccines against the avian flu to prevent the illness, as well as treatment for infected individuals.

However, little has been known about exactly what H5N1 does to the human body, according to Lan Lipkin, professor of neurology and pathology at the Columbia University in New York.

<http://www.voanews.com/english/2007-09-27-voa79.cfm>

Voice of America.com - September 17, 2007

China has confirmed an outbreak of the deadly H5N1 strain of bird flu among ducks in southern Guangdong province.

Hong Kong's health secretary York Chow said Monday Chinese agriculture ministry officials confirmed that tests indicate the presence of H5N1 in Panyu district.



AP Photo

More than 9,000 ducks died on five farms in Panyu this month. More than 32,000 ducks were then culled to help contain the outbreak.



Ducks are seen at a poultry farm in Funan County, east China's Anhui province, Jul 2007

<http://www.voanews.com/english/2007-09-17-voa38.cfm>

Resources

- County Vector Control Program's **(888) 551-INFO (4636)** for info on how to protect birds, or to report dead birds.
- HHSA's Avian and Pandemic Flu Info Line **(619) 515-6900** for info regarding avian and pandemic flu.
- Educational materials are available for public distribution and are also downloadable from the county website: www.sdbirdflu.org or www.sdpandemicflu.org. Click on "Pandemic Flu".
- National Geographic International Edition: www.nationalgeographic.com
- World Health Organization (WHO): www.who.int
- Federal Dept. of Health & Human Services: www.pandemicflu.gov
- Federal CDC site: www.cdc.gov/flu/pandemic
- State of California: www.dhs.ca.gov
- County of San Diego: www.sdbirdflu.org



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